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Microweighing of particulate matter becomes practical with a tapered-element balance like this one from Rupprecht & Patashnick. Articles about particle science begin on pp 74, 82, and 90.

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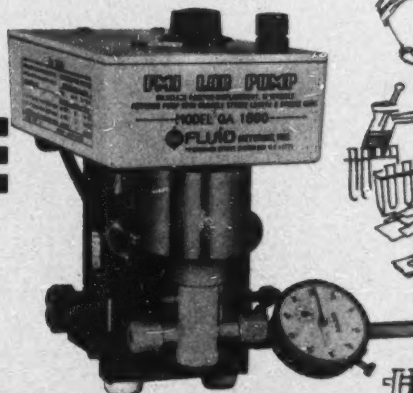
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OPINION POLL RESULTS

Revise shuttle program; save money and lives

READERS of *Research & Development* believe that the U.S. should revise the space program to use unmanned space probes so as to save money and not endanger human lives.

That opinion may not seem surprising in the aftermath of the *Challenger* tragedy, but this response from readers came in Opinion Poll responses which were mailed to us before January 28. Even before *Challenger* fell, two out of three R&D readers believed that the time had come for NASA to make major changes.

The response was among those to a series of questions which first were included in our Opinion Poll Questionnaire in 1972, and then were repeated for comparison purposes last summer. Numbers of respondents to the surveys were almost identical: 2,236 in 1972 and 2,279 in 1985.

And, to the extent that these respondents are typical of the R&D community, some very interesting similarities have survived those 13 years—and there also are some, possibly significant, changes in opinion.

One change is a substantial increase in the number who favor additional funding for the space program, up from 49% of respondents in 1972 to 66% in 1985.

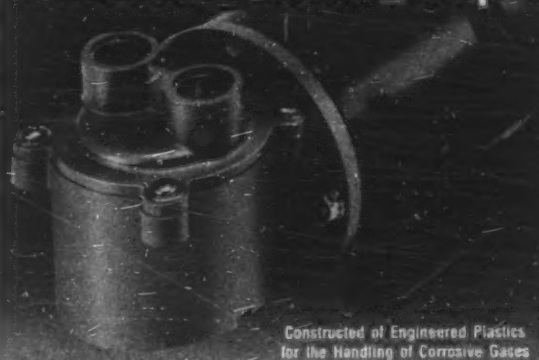
In the matter of alternative uses for space funds, those who favored alternatives in 1972 rated eradication of poverty, control of pollution, and exploitation of the oceans far higher than did 1985 respondents. The latter put a heavy emphasis on expanding basic research as an alternative to space flights.

Complete results of the surveys follow:

	1985	1972
1. Do you feel that the amount of money spent on the space program should be:		
a. Increased	66%	49%
b. Decreased	8	19
c. Continued at its present level	26	32
2. If you think our efforts in space should be maintained, which one of the following do you favor?		
a. Exploration and scientific colonization of the moon	20%	17%
b. Unmanned probes to nearby planets	12	*
c. Manned missions to nearby planets	16	17
d. Orbiting laboratories	52	37
* Question not phrased the same in 1972.		
3. If you feel that the money and manpower now being devoted to space exploration should be marked for more-Earthly projects, which of the following do you favor?		
a. Strengthen national defense	10%	8%
b. Exploit the oceans	15	20
c. Eradicate poverty	12	17
d. Control pollution	19	27
e. Expand basic research	38	23
f. Other	5	5

4. With a properly formulated exploration program, should we use unmanned space probes so as to save money and not endanger human lives?		
a. Yes	64%	41%
b. No	36	59
5. Considering the many side benefits claimed by supporters of the space program, should its continuance be directly related to these developments?		
a. Yes	38%	38%
b. No	62	62
6. Do you believe that the U.S. and Russia should work in a joint effort toward a cooperative space station as well as other combined ventures?		
a. Yes	60%	85%
b. No	40	15
7. Do you think that results from space experiments could further your particular R&D efforts?		
a. Significantly	26%	24%
b. Slightly	50	48
c. Not at all	24	28
8. Do you feel that rocket launchings and injection of satellites into orbit are causing undesirable changes in the atmosphere?		
a. Yes	8%	17%
b. No	92	83

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